FTIR Oil Analyzer

Data Sheet

Simplicity. speed. flexibility.

Designed for accuracy, flexibility and reliability, the Agilent Oil Analyzer is a powerful, rugged instrument developed to perform in rigorous environments. It is an advanced and uniquely user-friendly instrument that simplifies oil analysis and expands the limits beyond anything else commercially available.

Agilent is a recognized leader in the field of lubricating fluid analysis. Our understanding of the challenges you face is based on years of experience supporting clients ranging from the U.S. Army to original equipment manufacturers around the world. Our commitment to supporting our customers in the efficient and cost-effective use of FTIR spectroscopy applied to oil analysis has resulted in an exclusive distinction: meeting the requirements of the U.S. Department of Defense Joint Oil Analysis Technical Support Center (JOAP-TSC), for use in their condition-monitoring program.

Agilent Technologies

Key benefits

- **Fast and accurate.** Collect high-quality spectra in seconds, for productivity and confidence in your results.
- **Easy to analyze challenging samples**. Increased optical throughput provides the ability to detect changes in lubricant condition, even in highly-absorbing 'sooty' samples.
- **Simple to automate**. Auto-Identify, Auto-Calibrate, and Auto-Method Select features guide novice users, for ease-of-use. And fluid types can be automatically recognized and classified from chemical fingerprints, facilitating analysis of unknown components.
- **Unsurpassed flexibility**. The Agilent open-oil analysis system allows easy changes to methods, analysis, reporting, and alarms without cumbersome reprogramming or costly software rewriting. Analyze a wide range of fluids, from all types of machinery, such as petroleum-based or synthetic ester-based lubrication oils, hydraulic fluids, gearbox oils or transmission fluids.
- **Smart, uncomplicated design**. Simple to operate from technician to expert-level, minimizes training, getting you up-and-running faster.
- **Reliable**. Proven around the world in critical applications, including the U.S. Department of Defense and NATO, the Oil Analyzer is backed by an experienced and dedicated technical support staff. So you can be assured of confidence in your results.
- **Save money**. Reduce running costs with a policy of just-in-time oil changes. By using the Agilent FTIR Oil Analyzer, the U.S. Army saved $45 million.
- **High sample throughput**. Use the optional autosampler for automated operation, for ultimate productivity.

Application solutions

Using Fourier transform infrared (FTIR) spectroscopy, the Agilent Oil Analyzer measures relative changes in various indicators of oil conditions, based on changes in absorbance, to accomplish condition monitoring.

Monitoring applications include:

- Petroleum-based lubrication oils in diesel, gasoline and natural gas engines, including buses, railroad, fleet vehicles, and construction equipment.
- Synthetic ester-based lubrication oils in jet engines and power turbines.
- Predictive maintenance and condition monitoring.
- Petroleum and synthetic-based hydraulic fluids.
- Gearbox oils and transmission fluids.
- Fluid quality control.

Software that drives productivity

Agilent's Oil Analysis Software offers simplicity, speed and flexibility. With an improved graphical user interface that is extremely intuitive and user-friendly, it is designed for operation by a wide range of users, from maintenance people to lab personnel.

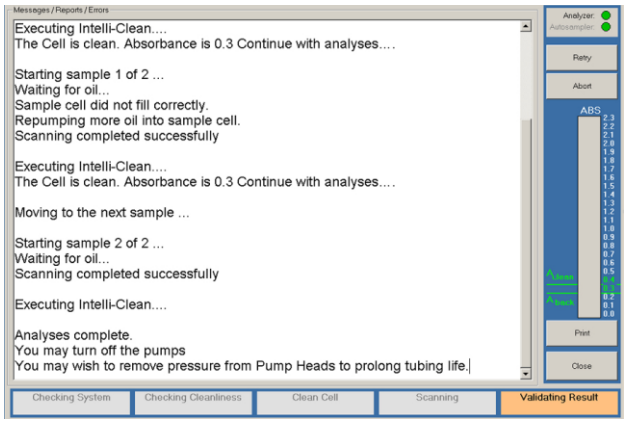

Figure 1. Intuitive interface for status updates from 'Across the Room' for increased uptime. Unique absorbance-level monitor ensures proper filling of the flow cell and an efficient cleaning procedure

Measured parameters include:

- Anti-oxidant reading
- Sulfate byproducts
- Anti-wear reading
- Gasoline dilution
- Ester breakdown
- Diesel/JP8 dilution
- Ethylene glycol (optional)
- Total base number
- Water in petroleum lube
- Other fluid contamination
- Soot value
- Water in extreme pressure
- Oxidation byproducts
- (EP) additive fluids
- Nitration byproducts

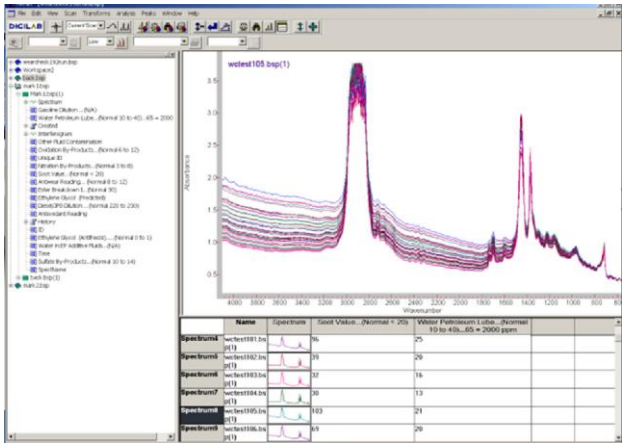

Figure 2. Expert mode provides method development and enhanced presentation of results, offering the flexibility of more detailed analysis

Ordering information

Description	Part Number
Oil Analyzer for 190–260 VAC	0010092600
Oil Analyzer for 90–130 VAC	0010092601
Advanced autosampler (90–130 VAC) option	019-2505-1
Advanced autosampler (190–260 VAC)	019-2505-2
24 bottle autosampler rack	697-5392-1
40 bottle autosampler rack	697-5392-2
55 bottle autosampler rack	697-5392-3

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